

PRELIMINARY REPORT ON TORNADES IN THE UNITED STATES DURING 1946

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The total number of tornadoes reported during 1946 was 114, which figure is 33 fewer than the average for the period 1916-45, and the smallest annual total since 1931, when only 94 occurred. Only 9 years during the last 33 have had fewer tornadoes than 1946. The greatest number usually occurs in May and 1946 was no exception to this rule; 35 occurred during this month, or 4 more than the average. During 1946 tornadoes were reported in 27 States; 11 occurred in each of the States of Kansas and Oklahoma, 13 in Texas, and 10 States reported only 1 each.

The total loss of life, 77, is relatively small when compared with the average of 237. In only 7 years since 1916 has the death toll been lower. More than a third of the deaths occurred in Texas during a series of tornadoes which struck the northeastern section of the State during January. Of the 114 tornadoes reported, only 20 were responsible for loss of life.

Total property damage was about \$12,657,650, slightly more than in an average year; more than a third of this damage occurred during the month of May. Nearly three-quarters of the damage was done in the five States of Texas, Michigan, Oklahoma, Minnesota, and Missouri. Only occasionally are tornadoes reported which do no damage; two such were observed in Wyoming, each failing to touch the ground.

On January 4, the most disastrous tornado activity of the year was recorded when a series of tornadoes struck several areas of northeastern Texas. The first tornado struck near Decatur, injuring 8 people and destroying some farm property. At 8:30 p. m., a second tornado killed 3 persons, injured 50, and damaged property to the extent of \$500,000 near Lufkin. This was thought to be the same tornado that struck near Nacogdoches at 9 p. m., killing 10 persons, injuring 200, and causing damage of \$1,500,000. At the same time another tornado near Palestine killed 15 persons, injured 60, and caused property damage in excess of \$500,000. Again at about 9 p. m., a tornado near Shiloh killed 2 persons and caused \$100,000 property damage. Still another tornado struck near Peniel at about 9 p. m., injuring 17 persons and causing \$50,000 damage.

Severe tornado activity occurred in Mississippi on January 5-6. On the 5th a tornado dipped to the ground a few miles northeast of Waynesboro, causing property damage to the extent of about \$500. At about 6 p. m., on the 6th, tornadoes killed 6 people at Carrollton, 2 at Coila, 1 at Indianola, and 3 at Sunflower, all in Mississippi; a total of about 40 persons were injured. Damage was estimated at \$247,000, of which \$60,000 was to crops. On this same date a tornado killed 6 people in Chicot County, Ark., injured 50 and caused property damage in excess of \$50,000.

At 3:15 p. m., on May 30, a tornado struck Creston, Iowa, damaging buildings over an area about 2 miles long and a quarter of a mile wide. Damage was estimated to be between \$250,000 and \$300,000; wind damage in rural areas totaled almost as much.

Another series of destructive tornadoes occurred in Missouri on May 23. Tornadoes occurred between 5 and 7 p. m., in Atchison, Andrew, Holt, and Nodaway Counties, injuring 4 persons and causing damage, mostly in rural areas, estimated at between \$180,000 and \$270,000. Between 6:30 p. m., and midnight, in La Fayette, Ray, and Carroll Counties, 13 persons were injured and damage estimated at \$504,650 was caused by one or more tornadoes. Three storms were reported to have occurred very closely together in Carroll County. Between 6:25 p. m. and 6:40 p. m., a tornado in Jackson County caused \$290,000 damage, killed 2 people, and injured one seriously. Between 7:30 p. m., and 7:38 p. m., a tornado in Platte County, near Barry, caused \$5,000 damage.

One of the most outstanding tornadoes of the year occurred during the night of June 17 in the Detroit-Windsor area on the Canadian border. Fifty-five injuries and \$1,000,000 damage were caused on the American side, 15 deaths and 49 injuries on the Canadian side. Later, on the same night, another tornado struck the outskirts of Ypsilanti, Mich., killing one person and causing minor damage. On June 27, a second tornado occurred in the Detroit area, injuring nine persons and causing property damage estimated at between \$250,000 and \$500,000.

Two other outstanding tornadoes occurred in Minnesota on August 17. These tornadoes were only 36 miles apart and occurred in connection with a cold front. The first struck in Blue Earth County near Mankato between 6:40 p. m. and 7 p. m. A tourist camp, consisting of 26 cabins and housing about 70 people, was destroyed. Six people were killed almost instantly and 37 were injured. The force of this storm was indicated by the amazing fact that a 27-ton road grader was picked up and buried 100 feet. Altogether 11 people were killed in this storm and about 49 injured. Total damage was estimated at \$225,000, of which \$25,000 was to growing crops. The second tornado struck Wells in Fairbault County about 7:30 p. m. A Catholic parochial school and a church suffered severe damage and many other buildings were unroofed in the residential district. The business district suffered the greatest destruction, however, since every building there was damaged and some completely destroyed. A detailed report on these two tornadoes will be found in the August CLIMATOLOGICAL DATA for the State of Minnesota.

Though tornadoes seldom occur in the Northeastern States, two were reported from that section during 1946. The first of these occurred at Concord, N. H., at 11:15 a. m., on July 23; it caused one death and property damage estimated at \$60,000. The second occurred near Niagara Falls, N. Y., between 11:30 a. m., and 12:15 p. m., on August 13. Damage amounted to \$1,500.

Tornadoes for 1946 are summarized in table 1, which shows the approximate monthly and annual number of tornadoes by States, with the deaths, injuries, and property damage caused by them. Material for this report was derived from the MONTHLY WEATHER REVIEW and monthly CLIMATOLOGICAL DATA publications for various sections of the United States. A final and more complete report will appear in the UNITED STATES METEOROLOGICAL YEARBOOK for 1946.

TABLE 1.—Tornadoes and probable tornadoes

State*	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Alabama:													
Number					1								1
Deaths					0								0
Injuries					0								0
Damage (\$×1,000)					10.0								10.0
Arkansas:													
Number	1										1		2
Deaths	6										0		6
Injuries	50										0		50
Damage (\$×1,000)	50.0										(1)		\$ 50.0
Colorado:													
Number							5						5
Deaths							0						0
Injuries							0						0
Damage (\$×1,000)							40.0						40.0
Florida:													
Number	1	2	1				3						7
Deaths	0	3	0				0						3
Injuries	0	3	0				0						3
Damage (\$×1,000)	(1)	7.0	10.0				16.5						\$ 33.5
Georgia:													
Number		1			1				1				3
Deaths		0			0				0				0
Injuries		0			0				0				0
Damage (\$×1,000)		(2)			15.0				10.0				\$ 25.0
Illinois:													
Number					1								1
Deaths					1								1
Injuries					10								10
Damage (\$×1,000)					100.0								100.0
Indiana:													
Number					3	1				1			5
Deaths					0	0				0			0
Injuries					4	0				0			4
Damage (\$×1,000)					252.5	20.0				50.0			322.5
Iowa:													
Number					2	1		1					4
Deaths					0	0		0					0
Injuries					4	0		0					4
Damage (\$×1,000)					600.0	40.0		(4)					\$ 640.0
Kansas:													
Number			1	1	7			1	1				11
Deaths			0	0	1			0	0				1
Injuries			0	0	0			0	0				0
Damage (\$×1,000)			15.0	3.0	367.5			(4)	2.0				\$ 387.5
Kentucky:													
Number					1							1	2
Deaths					0							0	0
Injuries					2							(4)	2
Damage (\$×1,000)					350.0							300.0	\$ 650.0
Louisiana:													
Number					1	1	2				2		6
Deaths					0	0	0				2		2
Injuries					0	0	0				3		3
Damage (\$×1,000)					2.8	(3)	27.5				10.0		\$ 40.3
Michigan:													
Number						3			2				5
Deaths						0			0				0
Injuries						44			0				44
Damage (\$×1,000)						1,500.0			350.0				1,850.0
Minnesota:													
Number						3		2					5
Deaths						0		11					11
Injuries						4		74					78
Damage (\$×1,000)						572.0		92.5					1,497.0
Mississippi:													
Number	5		3								1		9
Deaths	12		0								0		12
Injuries	40		3								0		43
Damage (\$×1,000)	247.5		275.0								100.0		622.5
Missouri:													
Number					6	1		1					8
Deaths					0	0		0					0
Injuries					18	0		0					18
Damage (\$×1,000)					1,069.65	(2)		(1)					\$ 1,069.65
Montana:													
Number						3	2		1				6
Deaths						1	0		0				1
Injuries						1	0		4				5
Damage (\$×1,000)						37.5	3.5		300.0				341.0
Nebraska:													
Number					1								1
Deaths					0								0
Injuries					2								2
Damage (\$×1,000)					36.0								36.0
New Hampshire:													
Number							1						1
Deaths							1						1
Injuries							0						0
Damage (\$×1,000)							60.0						60.0
New York:													
Number								1					1
Deaths								0					0
Injuries								0					0
Damage (\$×1,000)								1.5					1.5
North Carolina:													
Number					1								1
Deaths					4								4
Injuries					22								22
Damage (\$×1,000)					108.0								108.0
North Dakota:													
Number						2							2
Deaths						0							0
Injuries						4							4
Damage (\$×1,000)						85.0							85.0

See footnotes at end of table.

TABLE 1.—Tornadoes and probable tornadoes—Continued

State*	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Ohio:													
Number.....					1								1
Deaths.....					0								0
Injuries.....					0								0
Damage (\$×1,000).....					40.0								40.0
Oklahoma:													
Number.....		2	1		6	1				1			11
Deaths.....		1	0		1	0				0			2
Injuries.....		15	0		2	0				0			17
Damage (\$×1,000).....		1,500.0	150.0		62.0	50.0				25.0			1,787.0
Pennsylvania:													
Number.....								1					1
Deaths.....								0					0
Injuries.....								0					0
Damage (\$×1,000).....								(?)					(?)
Texas:													
Number.....	6			3	4								13
Deaths.....	30			0	6								36
Injuries.....	335			0	2								337
Damage (\$×1,000).....	2,660.0			18.9	172.3								2,851.2
Wisconsin:													
Number.....									1				1
Deaths.....									0				0
Injuries.....									0				0
Damage (\$×1,000).....									10.0				10.0
Wyoming:													
Number.....							2						2
Deaths.....							0						0
Injuries.....							0						0
Damage (\$×1,000).....							0						0
United States:													
Number (†).....	13	5	6	4	35	16	15	7	6	2	4	1	114
Deaths.....	48	1	0	0	13	1	1	11	0	0	2	0	77
Injuries.....	425	18	3	0	66	53	0	74	4	0	3	0	646
Damage (\$×1,000).....	2,957.5	1,507.0	450.0	21.9	3,185.75	2,304.5	147.5	926.5	672.0	75.0	110.0	300.0	12,657.65

* None reported for states not listed.

† Corrected for boundary-crossing tornadoes.

‡ Considerable.

§ Additional damage or number not included.

¶ Slight.

‡ Few thousand.

§ Several.

¶ Not reported.

